SUGGESTED WORDING CHANGES TO THE SF BAY MERCURY WATERSHED PERMIT FOR MUNICIPAL AND INDUSTRIAL WASTEWATER DISCHARGERS TO ACCOMMODATE RECYCLED WATER USE

1) Tentative Order p. 13 Effluent Limitations and Discharge Specifications III.A. Table 6. Footnote 1.d

A. Municipal Discharger Effluent Limits

Table 6. Municipal -- Individual Mercury Effluent Limitations

Footnote 1.d. The Monthly Mass Emission for a Discharger who provides recycled wastewater for industrial supply, shall include the effluent discharge adjustment granted to the industrial Discharger for its recycled wastewater use as described in III.B and Provision V.C.5 of this Order. The monthly effluent discharge adjustment mass shall be reported in each Self-Monitoring Report and in the Comments on Data field on the Annual Mercury Information Reporting Form Part 2 or 3 – Mercury Data.

2) Tentative Order p. 20 Special Provision V.C.5.d

5. **Mercury Discharge Adjustment for Recycled Wastewater Use by Industrial Dischargers**

d. If an industrial Discharger opts to apply a Mass Emission Adjustment, the Regional Water Board shall transfer that Adjustment to the mass emission for the corresponding discharge interval from the municipal Discharger who is the producer and source of the recycled wastewater. If this reverse Adjustment results in calculated mass discharge levels above the municipal Discharger's Average Annual Mercury Mass Limit and the industrial Discharger is at or above its Average Annual Mercury Mass Limit~~,~~ and the Total Municipal Group mass limit as specified in III.A. is exceeded, that municipal Discharger is in violation of its mass limit and is subject to enforcement action by the Regional Water Board.

3) Attachment E – MRP page E-8 Optional Group Compliance Reporting IV.C.2.b.iii

2. Report on Mercury Reduction Efforts

b. A description of mercury source control projects, planned or under way, including where applicable, but not limited to:

iii. estimates of mercury mass loads that can be avoided through program activities unrelated to normal treatment, including recycled water delivered, summarized by activity if~~-~~appropriate.

4) Attachment E – MRP page E-10 Annual Mercury Information Reporting Form Part 2 of 3 – Mercury Data

Comments on data (if any): *For Dischargers claiming an effluent credit for recycled wastewater use pursuant to Provision V.C.5 of the Order, please indicate the credit(s) that will be applied to the mass loads listed above, and show below the credit calculation and basis (use additional sheets if necessary) For Dischargers who provide recycled wastewater for industrial supply pursuant to Provision V.C.5 of the Order, please indicate any reverse credit(s) that have been applied to the mass loads listed above.*

5) Attachment F – Fact Sheet Pages F-28 – F-29 Rationale for Special Provisions VII.B.5

5. Effluent Discharge Adjustment for Recycled Wastewater Use by Industrial Dischargers

As dictated by California Water Code sections 13510 through 13512, the Regional Water Board should support and encourage water recycling facilities. The use of recycled wastewater preserves fresh potable water supply sources. The effluent discharge adjustment (or Adjustment) provided in this Order is to avoid penalizing Dischargers who produce recycled water and Dischargers who use recycled wastewater in its industrial processes, and is based on the principals outlined in the Basin Plan at 4.6.1.1. It is also similar to an existing provision in the individual permits for the petroleum refineries.

The Adjustment is only applicable if the mercury in the recycled wastewater is ultimately discharged through the industrial discharger's outfall. The Adjustments are calculated based on a mass balance principals and will thus not result in any net increase in mercury loadings to the Bay. The mass Adjustment subtracted from one industrial discharger, is then added to the municipal discharger who supplied the recycled wastewater and who would have otherwise discharged that mercury through its municipal treatment plant discharge outfall. Any such reverse mass adjustment is tracked and reported by the municipal discharger in its Self-Monitoring Reports so that there does not result in a de facto reduction in its individual wastewater allocation, and potential reduction in available discharge capacity, for its environmentally beneficial efforts providing recycled water. Furthermore, the discharge locations for the two will be to the same receiving water body because the cost of water transport between facilities that are very far apart would make the reuse project infeasible.

A concentration Adjustment is also provided because a typical reuse project involves use of the recycled wastewater in cooling towers or boilers where the concentration of mercury increases through evaporative losses. The blowdown

would go to the industrial discharger's sewer and potentially elevate its discharge concentration. Since the concentration limit is established based on past performance, future recycled wastewater use could impact the industrial discharger's compliance with the performance limit. Therefore, a concentration Adjustment is provided. Unlike the mass Adjustment, it is inappropriate to apply the concentration Adjustment in reverse to the municipal discharger because the reason for the Adjustment is to account for evaporative losses. These losses occur at the industrial facility and do not affect the municipal discharger's performance.

It would be appropriate to provide a concentration Adjustment but not a mass Adjustment where a municipal discharger installs advanced recycled water treatment facilities at its treatment plant site (e.g. RO) and blends the concentrated waste stream with its effluent prior to discharge. The mass discharged through the municipal discharger's outfall would not increase but the concentrations in the final effluent would increase based on the relative proportions of the effluent and concentrated waste stream.

Currently, the only reuse projects where an Adjustment would be applied is between the Chevron Richmond Refinery and the West County Wastewater District (WCWD). Chevron currently uses about ~~3~~4 million gallons per day of recycled wastewater. A new reuse project is scheduled to go on line in 200~~7~~9 that will bring the amount to ~~over~~approximately ~~4~~ 7-8 million gallons per day. West County Wastewater District discharges through a joint outfall with the City of Richmond under the West County Agency NPDES permit. Based on this provision, for mass accounting purposes, any mass Adjustment subtracted from Chevron would be added to the mass emission reported by the West County Agency prior to determining compliance with the average annual mass limit.

Under this two way Adjustment formulation, for projects like the WCWD and Chevron recycled water project, the allowable mass discharge to the bay under the mercury TMDL and this watershed permit would be the sum of the WCWD and Chevron wasteload allocations (WLAs). Only if WCWD and Chevron together both exceed their individual WLAs would there be a "real" mass discharge greater than that calculated for them in the TMDL. Therefore the following language is included in Special Provisions VII.B.5 to clarify when the Water Board may consider enforcement action when mass Adjustments are being applied:

> *If this reverse Adjustment results in calculated mass discharge levels above the municipal Discharger's Average Annual Mercury Mass Limit and the industrial Discharger is concurrently at or above its respective Average Annual Mercury Mass Limit and the Total Municipal Group mass limit as specified in III.A. is exceeded, that municipal Discharger is in violation of its mass limit and is subject to enforcement action by the Regional Water Board.*